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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/034,442	12/26/2001	Nemmara Chithambaram	G&C 30566.205-US-01	1504

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EXAMINER

HIRL, JOSEPH P

ART UNIT PAPER NUMBER

2121

DATE MAILED: 11/03/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/034,442

Applicant(s)

CHITHAMBARAM, NEMMARA

Examiner

Joseph P. Hirl

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 June 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5,9-21,23-33 and 37-51 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5,9-21,23-33 and 37-51 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

1. This Office Action is in response to an AMENDMENT entered June 21, 2004 for the patent application 10/034,442 filed on December 26, 2001.
2. The First Office Action of March 19, 2004 is fully incorporated into this Final Office Action by reference.

Status of Claims

3. Claims 1, 15, 29-33 and 37-42 are amended. Claims 6-8, 20-22 and 34-36 have been cancelled. Claims 43-51 are new. Claims 1-5, 9-21, 23-33 and 37-51 are pending.

Claim Objections

4. Applicant is advised that should claims 43, 45, and 47 be found allowable, claims 44, 46 and 48 will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k). The specification does not define the term

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“favorite” and hence such term is interpreted as being “preferred.” Since a “recently visited location” was preferred (favorite) at the time of visit, claim duplication becomes an issue.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1-42 are rejected under 35 U.S.C. 102(e) as being anticipated by LeBlanc et al (U. S. Patent 6,236,365, referred to as **LeBlanc**).

Claims 1., 15., 29.

LeBlanc anticipates determining an approximate location of a device (**LeBlanc**, c 3, l 37-40); reading a rule base that comprises an ordered collection of rules (**LeBlanc**, c 6, l 14-32); capturing an imprecise input (**LeBlanc**, c 6, l 14-32); wherein the imprecise input is based on: a proximity to a particular user identified location; a similarity between a current user's activity and a particular established activity profile; or whether a current time is within a particular temporal range or temporal profile (**LeBlanc**, c 3, l 29-45; EN:

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applicant has elected to limitations for “capturing an imprecise input” using the exclusive “or” and hence only one of such conditions need be addressed, i.e. proximity to user’s location); processing the imprecise input to determine a magnitude of participation of the input in the rules (**LeBlanc**, c 6, l 34-48); applying the rules to the imprecise input based on the magnitude of participation to produce a logical product (**LeBlanc**, c 27, l 42-60); and computing a refined location based on the logical product (**LeBlanc**, c 27, l 42-60; Examiner’s Note (EN): para 2 above applies; Leblanc involves computer implemented analysis (i.e. c 13, l 22-41)

Claims 2, 16., 30.

LeBlanc anticipates gathering empirical data (**LeBlanc**, c 27, l 14-59); and progressively refining the rule base based on the empirical data (**LeBlanc**, c 27, l 42-60).

Claims 3., 17., 31.

LeBlanc anticipates the rule base provides a default rule (**LeBlanc**, c 47, l 42-60).

Claims 4., 18., 32.

LeBlanc anticipates the rule base is configured to reflect regional trends, social trends, or demographic trends (**LeBlanc**, c 28, l 1-5; Examiner’s Note (EN): para 2 above applies; the regional trend relates to any localized case which is local and relates a trend).

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Claims 5., 19., 33.

LeBlanc anticipates one of the rules utilizes a logical product in an antecedent to determine a consequent (**LeBlanc**, c 27, l 42-60; EN: para 2 applies; if the signal strength is reliable and the strength is weak, the confidence that the signal is coming from the 40th floor is .4).

Claims 6., 20., 34.

LeBlanc anticipates the imprecise input is locational (**LeBlanc**, c 27, l 42-60; EN: location is the 40th floor).

Claims 7., 21., 35.

LeBlanc anticipates the imprecise input is activity profile based (**LeBlanc**, c 27, l 42-60; EN: para 2 applies; voice activity).

Claims 8., 22., 36.

LeBlanc anticipates the imprecise input is temporal (**LeBlanc**, c 16, l 27-38; EN: para 2 applies; radio frequency is time dependent).

Claims 9., 23., 37.

LeBlanc anticipates the imprecise input is spatio-temporal (**LeBlanc**, c 16, l 27-38; EN: para 2 applies; radio frequency is time dependent; propagation path is space dependent).

Claims 10., 24., 38.

LeBlanc anticipates wherein the magnitude of participation is within an interval [0,1] (**LeBlanc**, c 6, l 34-49).

Claims 11., 25., 39.

LeBlanc anticipates a three-valued set is defined for each imprecise input, wherein the three-valued set comprises a truth value, a false value, and an uncertainty value (**LeBlanc**, c 27, l 13-40; EN: para 2 above applies; LeBlanc's Very Strong and Strong represents "truth value", Weak represents an "uncertain value" and a very weak value represents a "false value" as defined by membership functions).

Claims 12., 26., 40.

LeBlanc anticipates the logical product of each rule comprises a value between 0 and 1 (**LeBlanc**, c 6, l 34-49).

Claims 13., 27., 41.

LeBlanc anticipates selecting the rule with the highest logical product (**LeBlanc**, c 27, l 42-51); and using a consequent corresponding to the selected logical product as the refined location (**LeBlanc**, c 27, l 51-59).

Claims 14., 28., 42.

LeBlanc anticipates the refined location comprises a list of candidate locations (**LeBlanc**, c 27, l 60-67; c 28, l 1-15).

Claims 43-48

LeBlanc anticipates the particular user identified location comprises a user identified favorite location; recently visited location of the current user (**LeBlanc**, Fig. 41; EN: "favorite" is not defined in the specification and hence "preferred" is the related interpretation; the route map of Fig 41 provides the preferred location from point x to

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point y and identifies those locations recently visited as one moves from point x to point y).

Claims 49-51

LeBlanc anticipates the refined location comprises a list of list of candidate locations (**LeBlanc**, Fig. 41; EN: the table of Fig. 41 is a list and the each row (direction instruction) constitutes the sublist which contains directions, distance for the immediate travel section and cumulative distance).

Response to Arguments

7. The objection to the specification is withdrawn.
8. The rejection of claims 1-42 under 35 U.S.C. 101 is withdrawn.
9. The rejection of claims 1-42 under U.S.C. 112, first paragraph, is withdrawn.
10. Applicant's arguments filed on June 21, 2004 related to claims 1-5, 9-21, 23-33 and 37-51 have been fully considered but are not persuasive.

In reference to Applicant's argument:

LeBlanc does not teach, disclose or suggest an imprecise input that is based on a proximity to a particular user identified location, a similarity between a current user's activity and a particular established activity profile, or whether a current time is within a particular temporal range of temporal profile.

Examiner's response:

Para 13. applies. See Para 6, claims 1, 15, and 29. LeBlanc addresses the concept of imprecise input @ 6, l 14-32 and proximity @ 3, l 29-45. Applicant has

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elected to limitations for "capturing an imprecise input" using the exclusive "or" and hence only one of such conditions need be addressed, i.e. proximity to user's location.

In reference to Applicant's argument:

Independent claims 1, 15, and 29 are generally directed to refining an approximate location of a device. An approximate location of a device is obtained. Thereafter, fuzzy logic is used to refine the location. First, a rule based is obtained. Imprecise input relating to the location of the device is then obtained. Applicant has amended the independent claim to incorporate some of the limitations of claims 6-8, 20-22, and 34-36 respectively. In this regard, the imprecise input may be based on at least one of three various criteria: (1) a proximity to a particular user identified location; (2) a similarity between a current user's activity and a particular established activity profile; or (3) whether a current time is within a particular temporal range or temporal profile. The imprecise input is then processed wherein it is determined how much (i.e., the magnitude) each input participates in the rules (of the rule set). The rules are then applied to the imprecise input based on the magnitude of participation. The rules are applied by producing a logical product. Based on the logical product, a refined location is obtained.

Examiner's response:

Para 13. applies. See Para 6, claims 1, 15, and 29. LeBlanc addresses the concept of imprecise input @ c 6, l 14-32 and proximity @ c 3, l 29-45. Applicant has elected to limitations for "capturing an imprecise input" using the exclusive "or" and hence only one of such conditions need be addressed, i.e. proximity to user's location. LeBlanc addresses the limitations of logical product and refined location @ c 27, l 42-60.

In reference to Applicant's argument:

LeBlanc merely describes a location system for commercial wireless telecommunication infrastructures (CMRRs). LeBlanc's system is an end-to-end solution having one or more location systems for outputting requested locations of commercially available hand sets or mobile stations (not shown) based on, e.g. AMPS, NAMPS, CDMA or TDMA communication standards, for processing both local mobile station location requests and more global mobile station location requests via, e.g., Internet communication between a distributed network of location systems. LeBlanc's system uses a plurality of mobile station locating technologies including those based on: two-way TOA and TDOA; home base stations and distributed antenna provisioning. Further, LeBlanc's system can be modularly configured for use in location signaling environments ranging from urban, dense urban, suburban, rural, mountain to low traffic

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or isolated roadways. Accordingly, the system is useful for 911 emergency calls, tracking, routing, people and animal location including applications for confinement to and from certain areas.

Examiner's response:

Para 13. applies. Comments are acknowledged.

In reference to Applicant's argument:

In rejecting original claim 6, the Office Action provided that LeBlanc's 4th floor met the limitations of the location imprecise input. The independent claims have now provided that the imprecise input is based on a proximity to a particular user identified location. In other words, the locational imprecise input is based on how close the current user is to a particular user specified/identified location. New dependent claims 43-48 further elaborate on examples of such a user identified location. In this regard, the user identified location maybe a user identified favorite location of the user or a recently visited location of the current user. Such a user identified location is clearly different from LeBlanc's location that is merely based on wireless location signals received representing distributed antennas across building floor boundaries being received from a specific floor on a multi-storied building (see col 27, lines 13-16). In this regard, LeBlanc completely fails to based imprecise input on a user-identified location. instead, LeBlanc's location (Le., the 40th floor) is not user specified at all. Nor does LeBlanc's location have any relationship to a user's favorite location or a previously visited location of a user. Thus, LeBlanc's location is based on the strength or weakness of signals from antennas on various floors of a building. Accordingly, inapposite from the present claims, LeBlanc's. location is not determined or evaluated with respect to a particular user based input.

Examiner's response:

Para 13. applies. The claims and only the claims form the metes and bounds of the invention. Limitations appearing in the specification but not recited in the claim are not read into the claim. "Proximity to a particular user identified location" is interpreted to mean, proximity defined by the set of signals related to a specific user location that is established by where the user is located which is what LeBlanc is all about. The wireless process does not disqualify LeBlanc's prior art. Favorite is not defined in the specification and is interpreted to mean preferred. Any recently visited location can be interpreted as preferred. LeBlanc's analysis of signals are related to a particular user based input ... how else are such signals developed?

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In reference to Applicant's argument:

The second type of imprecise input in the amended claims provides for a similarity between a current user's activity and a particular established activity profile. In rejecting original claims, 7, 21, and 35, the Office Action refers to col 127, lines 42-60 referring to a voice activity. However, contrary to the present claims, voice activity has nothing to do with a particular established activity profile of a user or a comparison between a current user's activity and such a profile. In this regard, the claims specifically provide for and recite the terms "activity profile". Under MPEP 2142 and 2143.03 "To establish prima facie obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. In re Royka, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). "All words in a claim must be considered in judging the patentability of that claim against the prior art." In re Wilson, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970)." In this regard, the term "activity profile" cannot merely be ignored. Firstly, the cited portion does not mention or refer to "voice activity" at all. In this regard, the terms "voice activity" are used in col 16, line 42. Secondly, the monitoring of voice activity does not even remotely suggest that the voice activity has a particular profile or a comparison of a current user's activity to such an established profile (as claimed). LeBlanc provides for isolation by monitoring voice activity. Again, there is no teaching, suggestion, or description, implicit or explicit, of a profile, an activity profile, or a comparison of a current user's activity, to such a profile.

Examiner's response:

Para 13. applies. With applicant's modifications to independent claims 1, 15 and 29, the issue regarding the second type of imprecise input has been made abstract or academic (see Para 6, claims 1, 15, 29). Notwithstanding such conditions, such voice activity is an activity and the profile is noted by LeBlanc @ c 27, l 35-40. Applicant is encouraged to review Para 11. Broad interpretation does not ignore requirements.

In reference to Applicant's argument:

The third type of imprecise input in the amended claims provides for whether the current time is within a particular temporal range or temporal profile. In rejecting original claims 8, 22, and 36, the Office Action merely recites col 16, lines 27-38 and states that radio frequency is time dependent. Applicant notes that while the frequency of a radio signal has a time aspect, such a teaching is significantly distinguishable from comparing a current time to a particular temporal range or profile.

Examiner's response:

Para 13. applies. With applicant's modifications to independent claims 1, 15 and 29, the issue regarding the third type of imprecise input has been made abstract or

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academic (see Para 6, claims 1, 15, 29). Notwithstanding such conditions, the original claim merely cited that the imprecise input was temporal ... a radio frequency way qualifies. Applicant is encouraged to review Para 11. Broad interpretation does not ignore requirements.

Examination Considerations

11. The claims and only the claims form the metes and bounds of the invention.

“Office personnel are to give the claims their broadest reasonable interpretation in light of the supporting disclosure. *In re Morris*, 127 F.3d 1048, 1054-55, 44USPQ2d 1023, 1027-28 (Fed. Cir. 1997). Limitations appearing in the specification but not recited in the claim are not read into the claim. *In re Prater*, 415 F.2d, 1393, 1404-05, 162 USPQ 541, 550-551 (CCPA 1969)” (MPEP p 2100-8, c 2, I 45-48; p 2100-9, c 1, I 1-4). The Examiner has full latitude to interpret each claim in the broadest reasonable sense. Examiner will reference prior art using terminology familiar to one of ordinary skill in the art. Such an approach is broad in concept and can be either explicit or implicit in meaning.

12. Examiner's Notes are provided to assist the applicant to better understand the nature of the prior art, application of such prior art and, as appropriate, to further indicate other prior art that maybe applied in other office actions. Such comments are entirely consistent with the intent and spirit of compact prosecution. However, and

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unless otherwise stated, the Examiner's Notes are not prior art but a link to prior art that one of ordinary skill in the art would find inherently appropriate.

13. Examiner's Opinion: Paras 11. and 12. apply. The Examiner has full latitude to interpret each claim in the broadest reasonable sense.

Conclusion

14. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

15. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

16. Claims 1-5, 9-21, 23-33 and 37-51 are rejected.

Correspondence Information

Any inquiry concerning this information or related to the subject disclosure should be directed to the Examiner, Joseph P. Hirl, whose telephone number is (571) 272-3685. The Examiner can be reached on Monday – Thursday from 6:00 a.m. to 4:30 p.m.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Anthony Knight can be reached at (571) 272-3687.

Any response to this office action should be mailed to:

Commissioner of Patents and Trademarks,
Washington, D. C. 20231;

or faxed to:

(571) 273-3685 (for formal communications intended for entry with notation of "Formal Entry");

or faxed to:

(571) 273-3685 (for informal or draft communications with notation of "Proposed" or "Draft" for the desk of the Examiner).



Joseph P. Hirl

October 28, 2004



Anthony Knight
Supervisory Patent Examiner
Group 3600